Special Article

Guidelines for the Control of Human Immunodeficiency Virus Infection in Adolescents

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Although adolescents account for only 0.4% of reported cases of the acquired immunodeficiency syndrome (AIDS) in the United States, they are sexually active and, therefore, at risk of acquiring human immunodeficiency virus (HIV) infection. To address issues of HIV control in adolescents, we developed guidelines that emphasize education and medical care and deemphasize antibody testing. For adolescents known to be infected with HIV, we recommend no restrictions on access to educational or treatment programs except when their health providers recommend such restrictions to protect them from exposure to opportunistic infections. For adolescents of unknown antibody status with a possible previous exposure to HIV, we recommend that as long as the incidence of HIV infection and clinical AIDS remains low, there should be no restrictions on residential placements and no routine antibody testing.

(Oliva GE, Rutherford GW, Grossman M, et al: Guidelines for the control of human immunodeficiency virus infection in adolescents. West J Med 1988 May; 148:586-589)

The information and recommendations in this report were developed and compiled by the Adolescent AIDS Task Force,* a subcommittee of the Perinatal and Pediatric AIDS Advisory Committee of the Department of Public Health, City and County of San Francisco. It included representatives from the adolescent medicine divisions of the Department of Pediatrics of San Francisco General Hospital and Medical Center and the University of California, San Francisco; the Bureau of Family Health, the AIDS Office, the Bureau of Communicable Disease Control, the Division of Forensic Services, and Community Substance Abuse Services, San Francisco Department of Public Health; a community agency serving homosexual and homeless adolescents; and the National Center for Youth Law. These recommendations were developed in response to requests from juvenile justice staff and agencies involved in adolescent social services for guidelines for antibody testing and placement of youth at risk for or infected with the human immunodeficiency virus (HIV). This includes adolescents with the Centers for Disease Control (CDC)-defined acquired immunodeficiency syndrome (AIDS), those with lesser clinical manifestations of HIV infection such as AIDS-related complex (ARC), and those with asymptomatic infection.

The recommendations that follow apply to all adolescents known to be infected or at risk of being infected with HIV. They are designed to supplement previously published guidelines for the control of perinatally transmitted HIV infection[1,2] and for the education of HIV-infected children.[3-6]

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HIV Infection in Adolescents

Of the 42,354 cases of AIDS reported to the CDC through October 5, 1987, 170 occurred in persons 13 to 19 years old. This represents about 0.4% of all reported AIDS cases. The median age of these patients was 18 years, and 95% were aged 17 years or older; 42% were white, 37% black, and 19% Latino, with a male-to-female ratio of 5.3:1. They were reported from 31 states, the District of Columbia, and Puerto Rico; 19 (11%) were from California. Of the 170 adolescents with AIDS, 77 (45%) acquired HIV sexually, 62 (36%) through transfusion of infected blood or blood products, 11 (6%) through intravenous drug use, 10 (6%) either sexually or through intravenous drug use, and for 10 (6%), the route of acquisition was undetermined. Of the 170 adolescents, 21 (12%) had histories of intravenous drug use (Table 1).[7]

In San Francisco, as of the same date, there had been five cases of AIDS reported in adolescents. All were 17 years old or older, two were white, one black, and two Latino. Four were homosexual or bisexual male adolescents, and one had hemophilia (San Francisco Department of Public Health, unpublished data, October 1987). Thus, both nationally and locally, reported adolescent AIDS cases and, by inference, HIV infection in adolescents are primarily diseases of older gay male adolescents and those with hemophilia, with a higher proportion of non-whites when compared with AIDS in older persons.

In looking at the potential risk for adolescents, however, it should be noted that the incidence of AIDS rises sharply in the group aged 20 to 24 years, with 1,887 (4.5%) cases

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ABBREVIATIONS USED IN TEXT

AIDS = acquired immunodeficiency syndrome
ARC = AIDS-related complex
CDC = Centers for Disease Control
HIV = human immunodeficiency virus

occurring nationally in this group (Table 1). Because of the long latency period of the disease, it is thought that many of these young adults contracted the infection during adolescence.[7]

HIV Transmission in Households

None of the identified cases of HIV infection in the United States are known to have been transmitted in schools, day care, or foster care settings, or through other casual person-to-person contact.[4] Other than sexual partners of HIV-infected persons, infants born to infected mothers, or two cases involving nonparental transmission of HIV from a patient to a person providing extended home nursing care,[8,9] none of the family members of the more than 40,000 AIDS patients reported to the CDC have contracted AIDS. Eleven studies of family members of patients with HIV infection have failed to show HIV transmission to adults who are not sexual contacts of infected patients or to children who have not already been infected perinatally.[10-20]

Existing Guidelines for Correctional Settings

National recommendations have not been made regarding prevention of HIV infection in correctional settings. In a survey of 50 state correctional departments and 33 large city and county jail systems, none of the eight cases of AIDS in correctional staff were related to inmate contact.[21] Most of the persons with AIDS in prisons and jails were intravenous drug users. Of these institutions, 83% had educational programs for staff and inmates, and most had adopted conservative approaches to testing, with 88% of the state and 79% of the city and county facilities limiting testing to that needed to diagnose symptomatic inmates, testing at the request of inmates, or not doing any testing. Only six state and seven city and county institutions did routine testing. In large part, therefore, correctional institutions have opted for limited testing despite the fact that many deal with large numbers of inmates in well-recognized high-risk groups.

The Legal Rights of Minors

California statutes guarantee minors the right to obtain services for the diagnosis and treatment of sexually transmitted diseases[22] and guarantee without parental consent the provision of services related to pregnancy, pregnancy diagnosis,[23] and chemical dependency.[24] California law also provides minors with the same rights to confidentiality as adults seeking such services[25,26] and requires informed written consent before serologic testing for the presence of HIV may be done or test results disclosed.[27] The current legal interpretation of the above statutes is that adolescents older than 12 years have the same rights to consent and confidentiality in the area of HIV testing as adults have and do not require their parents' consent to be tested. Thus, adolescents should not be tested without their written consent, and their test results should only be disclosed based on their own written authorization. All adolescents should be encouraged to share vital health information with their parents.

Recommendations

Education

Adolescents in school settings. It is imperative that schools provide meaningful information about the modes of transmission and the risks of acquiring HIV infection to students, parents, and teachers. The basic principles of health promotion and communicable disease prevention should be part of the kindergarten through grade 12 curriculum. In addition, instruction in reproductive health, sexual values and attitudes, and the prevention of sexually transmitted diseases including HIV infection should begin in the sixth grade at the latest. All curricula should include information on ways to minimize the risk of acquiring the infection through sexual contact. Personnel responsible for teaching these units should be fully trained and competent in handling the sensitive issues raised by this subject area. Parents should be informed of the inclusion of this material in the curriculum and invited to review and comment on the contents. They should also, where possible, be provided with the opportunity to participate in informational meetings to address their concerns and answer their questions. In addition to previous recommendations regarding education,[3] we recommend that tests of students' knowledge of health issues, including HIV and other communicable diseases, be developed and instituted to guarantee that the material has been taught in an effective manner.

Homeless and truant adolescents. Public and private agencies serving these populations should develop educational materials and intervention strategies that can be integrated into their current programs. Efforts should be made to reach homeless adolescents, including non-English-speaking youth, in areas and population groups not currently served by existing providers. All personnel involved in these programs should be given adequate information and training in the prevention of HIV infection, the identification of those at risk, and the techniques for intervening with adolescents in the area of sexual behavior and intravenous drug use. Sexually active youths should be encouraged to use safe sexual practices, regardless of sexual orientation, drug use, or other risk indicators.

Adolescents in medical settings. This group includes adolescents involved in drug, alcohol, and mental health programs and those receiving family planning services, sexually transmitted disease treatment, and specialized services for

TABLE 1.—*AIDS Cases by Transmission Category and Age Group, United States**

Transmission Category	Cases: Age Group, yr 13-19 No.	(%)	20-24 No.	(%)
Homosexual or bisexual man	64	(38)	1,173	(62)
Intravenous (IV) drug user	13	(8)	143	(8)
Homosexual or bisexual man and IV drug user	11	(6)	216	(11)
Hemophilia or coagulation disorder	10	(6)	30	(2)
Transfusion, blood or components	52	(31)	48	(3)
Heterosexual	10	(6)	188	(10)
Undetermined	10	(6)	89	(5)
Total	170		1,887	

AIDS = acquired immunodeficiency syndrome

*Provisional data through October 5, 1987.

homosexuals. We recommend that educational programs similar to those described for homeless and truant adolescents be developed and implemented for this group.

Adolescents in residential settings. Residential settings include foster care, group homes, shelters for homeless adolescents, and residential juvenile justice, mental health, and drug treatment facilities. Because of the special circumstances in these facilities, we recommend a comprehensive approach to HIV prevention education similar to that recommended for schools be adopted. This should include the following:

- Thorough education of staff in the areas of sexuality, sexually transmitted diseases, and HIV prevention, including safe sex guidelines;
- Assurance that staff is competent in providing education in the prevention of AIDS and sexually transmitted diseases;
- Uniform infection control precautions such as those proposed by the CDC[28];
- Development of appropriate materials and group sessions for residents; and
- Education of parents, where possible.

HIV Antibody Counseling and Testing

We think that routine testing for the presence of the HIV antibody is not useful for adolescents and recommend that it not be advocated or required. Antibody testing is appropriate in clinical settings for evaluating adolescent patients with unexplained adenopathy or other signs and symptoms of HIV infection. Testing is also appropriate for adolescent women who are at risk of HIV infection and are contemplating pregnancy. In these instances, testing should be conducted in a medical specialty setting with personnel experienced in the diagnosis and treatment of HIV infection. Anonymous testing at alternate test sites may be appropriate as a health education experience for highly motivated adolescents or for those who have a strong desire to be tested. In any event, testing must be voluntary and, if possible, should not be conducted while an adolescent is in detention. Confidentiality and consent requirements should be strictly observed with respect to any testing of adolescents. Psychological risks to youth known to be depressed or suicidal should be taken into consideration in all pretest and posttest counseling.

Schools. Previously published guidelines developed by the Department of Public Health for the San Francisco Unified School District recommend that widespread school-based educational programs be implemented for students, parents, and teachers.[3] There should be no mandatory HIV antibody testing for school staff or students. There is in general no contraindication for school attendance of HIV-infected children, but decisions regarding placement of students known to be infected with HIV should be reviewed by a joint committee of the Department of Public Health and the school district. Strict confidentiality should be maintained and uniform disinfection procedures adopted.[3]

Pregnant adolescents. Previously published guidelines developed by the Department of Public Health recommended that HIV antibody testing be conducted on a confidential basis with informed consent by the prenatal care provider in the first trimester or as early as possible for women who are at risk of having been exposed to HIV infection.[1]

Residential settings. All adolescents entering a residential setting should have a complete medical evaluation upon admission. Even if the adolescent is found to be at risk for HIV infection, testing should occur only in accordance with the general guidelines stated previously. We do not recommend mandatory testing, regardless of risk status, at this time. There is no reason to require testing of staff.

All residential settings need updated infection control guidelines stressing uniform disinfection procedures for body fluid spills. All staff should be educated about the techniques involved in implementing these guidelines.

Adolescents Known to Be Infected With HIV

We recommend that adolescents known to be infected with HIV have no restrictions placed on access to educational or treatment programs except when their health provider recommends such restrictions to protect them from exposure to infection. Previously published guidelines for the education of children infected with HIV provide for a case review for any infected student enrolling in school.[3] A baseline medical evaluation of any student entering school should be encouraged. Adolescents known to be infected should be aggressively counseled on limiting further transmission of infection and should be offered ongoing psychological counseling in an accessible setting. Additionally, adolescents should be encouraged to inform past, present, and future sexual partners that they may have been exposed.

Youth in detention. All adolescents entering detention should have a thorough medical evaluation. A designated on-site physician should determine whether adolescents can be housed in a routine setting or whether there needs to be a more protected environment. Routine isolation is not indicated. Regardless of the placement decision, the right of an adolescent to confidentiality must be maintained. The fact that an adolescent is infected should not be disclosed to anyone, including other detained adolescents, probationary counselors, or residential staff, except for medical staff involved in the adolescent's direct care. Protocols should be developed to guarantee confidentiality of medical records. Staff should follow uniform infection control procedures in these settings, whether or not the facility is housing HIV-infected persons.

Youth in other residential facilities. There is in general no reason to exclude HIV-infected adolescents from a residential setting. Medical review should be done before placement, however, to determine any special needs. Confidentiality should be carefully maintained. HIV status should not be disclosed to social service, legal, or probation personnel unless, as determined in the medical review, such disclosure is necessary for the protection of the adolescent or others with whom he or she may have contact. Disclosure to anyone other than the health care provider should occur only with the written consent of the adolescent or on court order when deemed medically necessary. Adolescents who are clinically ill will require special care, and this should be arranged on a case-by-case basis.

Special confidential counseling should be available for infected adolescents in all residential settings. Circumstances may dictate whether it is wise to provide this on or off site. This counseling should include psychosocial support and coordination of services that the adolescent currently needs or will need to cope with the disease. Detailed infor-

mation on the modes and prevention of transmission should be provided.

Asymptomatic Adolescents With High-Risk Behaviors Whose Antibody Status Is Unknown

Intensive educational efforts should be targeted to asymptomatic adolescents who are known to engage in high-risk behavior but whose antibody status is unknown, as well as to their service providers. As long as the incidence of HIV infection and clinical AIDS remains low in adolescents, there should be no restrictions on residential placements and no routine testing done, including testing of those housed in correctional settings. Adolescents who have been counseled and request testing should be referred to anonymous test sites.

Conclusions

These are interim guidelines that will be regularly reviewed as more information becomes available on the incidence and natural history of HIV infection in adolescents. We emphasize that the prevalence of HIV infection among adolescents appears to be low and that there is no evidence that HIV is transmitted among adolescents not involved in sexual contact with infected partners, not sharing needles, and not exposed to blood or blood products. We conclude that routine testing for HIV infection should not be conducted in any group of adolescents at this time.

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